ZNZ PhD Retreat 21, Clinic Valens 8 - 10 July 2021

Program (Version 6.7.21)

<u>Thursday, 8 July</u>

14:00-16:00	Check-in at Hotel Schloss Ragaz
16:30	Extra bus in front of Tamina Therme* to Clinic Valens
17:00 – 19:00	Short Talks on PhD Research Projects, Part I, short break/drinks at 18:00, 7 talks
	Endless Work: How Stem Cells Shape Structure and Function of the Brain throughout Life Plenary Talk by Prof. Sebastian Jessberger, Brain Research Institute, UZH
20:00	Dinner (Hotelhalle)
22:30	Buses leaving Clinic Valens to Tamina Therme/Hotel Schloss Ragaz

Friday, 9 July

08:30	Extra bus in front of Tamina Therme to Clinic Valens
09:00 – 12:00	Short Talks on PhD Research Projects, Part II, coffee break at 10:15, 10 talks
12:00 – 13:00	Patient Presentations by Dr. Roman Gonzenbach, Clinic Valens
13:00 – 14:15	Lunch Buffet (Restaurant Quellweg)
14:15 – 15:00	Guided Tour through the Neurorehabilitation Clinic
15:00 – 15:45	Gene Therapy for Retinal Diseases Plenary Talk by Prof. Hendrik Scholl, Department of Ophthalmology, University of Basel
15:45 – 18:00	Poster Session (Hotelhalle), coffee at 16:00, 26 posters
18:00	Buses leaving Clinic Valens to Tamina Therme
19:30	Buses leaving for dinner at "Altes Bad Pfäfers" from Tamina Therme

Saturday, 10 July

	Checkout at Hotel Schloss Ragaz after breakfast
08:30	Extra buses in front of Tamina Therme to Clinic Valens
09:00 - 12:00	Short Talks on PhD Research Projects, Part III, coffee at 10:30, 10 talks
12:00 - 12:30	Feedback on the ZNZ PhD Program in Neuroscience
12:30 – 13:15	Mental Dice – The Neuropsychology of Chance and Randomness
	Plenary Talk by Prof. Peter Brugger, Clinic Valens
13:15	Lunch box (Zinn Saal)
13:58	Public bus to Bad Ragaz

*Tamina Therme is a few walking minutes away from Hotel Schloss Ragaz

Short Talks on Ph.D. Research Projects:

(10 minutes talk and five minutes discussion)

Part I, Thursday, 17:00 - 19:00

Raphaela Ardicoglu, Institute for Neuroscience, ETH
Functional analysis of the stress-responsive vascular gene Apold1
Reto Cola, Institute of Pharmacology and Toxicology, UZH
Development and validation of a genetically encoded PACAP sensor
Darren Kelly, Institute for Neuroscience, ETH
An Investigation of circRNA function in mammalian synapse development and plasticity
Margaux Quiniou, Brain Research Institute, UZH
Establishing live sensors of cellular age for the study of aging in single cells
Monica Iachizzi, Institute of Veterinary Pharmacology and Toxicology, UZH
Evaluation of the impact of gut microbiota on epigenetic programming of specific CNS cell populations and behavioral functions
Jose Angel Pineda, Brain Research Institute, UZH
Insights of brain connectivity circuits through image generation
Maria Karatsoli, Brain Research Institute, UZH

Diversity and cortical distribution of human and mouse Cajal Retzius Neurons

Part II, Friday, 9:00 - 12:00

8. Hui Zhang, Institute of Neuropathology, USZ Opsonin conjugated LCP as therapeutic reagents for neurodegenerative diseases 9. Waleed ElGrawani, Institute of Pharmacology and Toxicology, UZH Local sleep: How do cells decide? 10. Newsha Ghasemi Nejad, Institute for Neuroinformatics, UZH/ETH Behavioral and electrophysiological effects of task-irrelevant changes in the somatosensory cortex 11. Manuel Carro Dominguez, Neural Control of Movement Lab, ETH The role of the Locus Coeruleus in sleep, cognitive task performance and autonomic functions 12. Stephanie Huwiler, Neural Control of Movement Lab, ETH Causal role of sleep slow waves in cardiovascular and metabolic health 13. Wolfgang Ganglberger, Institute of Pharmacology and Toxicology, UZH Sleep, health and aging: Learning from healthy and critically ill human sleep data 14. Matteo Panzeri, Brain Research Institute, UZH Investigating mesoscale changes in activity following large sensorimotor strokes 15. Morgan Roberts, Vascular Neurology and Rehabilitation, UZH Characterising plasticity mechanisms in the post-stroke motor cortex 16. Tiang Yuyang, Vascular Neurology and Rehabilitation, UZH The role of dopamine in post-stroke recovery 17. Hui Ji, Center for MR-Research, University Children's Hospital Zurich Characterisation of brain morphology, perfusion and white matter microstructure in congenital disorders using fetaIMRI

Part III, Saturday, 9:00 - 12:00

18. Giada Devittori, Rehabilitation Engineering Lab, ETH Clinical feasibility and evaluation of minimally-supervised robot-assisted therapy 19. Nick Sidorenko, Department of Economics, UZH Investigating the neural basis of reward-guided behavior flexibility 20. Caroline Heimhofer, D-HEST, ETH Central mechanisms of motor fatigability 21. Rui Graca, Institute for Neuroinformatics, UZH/ETH Scientific dynamic vision sensor 22. Maria Cervera, Institute for Neuroinformatics, UZH/ETH Lifelong learning and network architecture in biologically-inspired neural networks 23. Simon Schug, Institute for Neuroinformatics, UZH/ETH Lifelong learning to learn in neural networks 24. Pengfei Sun, Institute for Neuroinformatics, UZH/ETH Event-based neural network 25. Georgia Dellaferrera, Institute for Neuroinformatics, UZH/ETH Biologically inspired learning in deep neural networks 26. Xi Chen, Institute for Neuroinformatics, UZH/ETH Recurrent neural network accelerator for energy-efficient training on the edge 27. Yingqiang Gao, Institute for Neuroinformatics, UZH/ETH Inference for scientific documents

Posters, Friday, 15:45-18:00

Even poster numbers: presenters are at poster 15:45 – 16:45 Odd poster numbers: presenters are at poster 16:45 – 17:45 Format: A0 Portrait, i.e. height x width: 1189 x 841 mm. Pins/tape will be available.

P01 Linbi Cai, Brain Research Institute, UZH

Propagation and integration of sensory-stimulus evoked olfactory and somatosensory responses in the developing mouse brain

P02 Alex Rosi-Anderson, Institute of Pharmacology and Toxicology, UZH

The omics of memory: pathways of fear memory consolidation within activity tagged neuronal ensembles

P03 Maha Wybitul, Institute for Regenerative Medicine, UZH

Early prognostic spatio-temporal neuroimaging factors of Alzheimer's Disease in non-demented elderly project description

P04 Huimin Shan, Institute for Regenerative Medicine, UZH

Nogo-A inhibition combined with neurorehabilitation - A novel regenerative therapy for traumatic brain injury

P05 Fabian Gonzales Pinto, Decision Neuroscience Lab, ETH A low cost and integral biomarker for individuals at risk of developing Alzheimer's disease P06 Inès Antunes Dos Santos Dias, D-HEST, ETH Closed-loop auditory stimulation of slow-wave sleep: exploring CLAS as a tool to modulate protein handling and neural circuitry properties in animal models of neurodegeneration P07 Gabriele Wögenstein, Neuropediatrics, University Children's Hospital Zurich Enveloped vectors as new gene therapeutic tool P08 Stephanie Chie, Department of Neonatology, USZ Sialic acid and human neurodevelopment: a molecular and cellular approach P09 Melanie Furrer, Child Development Center, USZ The interaction between sleep homeostasis and circadian rhythms: a translational approach P10 Niklas Schneider, Dep of Neurology, USZ tbd P11 Iara De Schoenmaker, University Hospital Balgrist Pain - From Phenotypes to Mechanisms P12 Iurii Savvateev, Decision Neuroscience Lab, ETH Temporal Interference stimulation of prefrontal cortex for the modulation of effort-based decision-making P13 Jeroen Brus, Decision Neuroscience Lab, ETH Computational and causal role of resource limitations in decision-making P14 Nathalie Rieser, Psychiatric University Hospital Clinical and mechanistic effects of psilocybin in alcohol use addicted patients P15 Nada Frei, University Clinic for Child and Adolescent Psychiatry, UZH Regulation and training of the visual word form area function to support reading performance P16 Christina Lutz, University Clinic for Child and Adolescent Psychiatry, UZH AllRead – EEG and fMRI measures of a learning-app based training in children with poor reading skills P17 Marionna Münger, Department of Psychology, UZH Longitudinal alterations of the symptomatic burden, executive functions, and neurophysiology in ADHD P18 Ingrid Odermatt, Neural Control of Movement Lab, ETH Biological basis of neural changes evoked by TMS based motor imagery neurofeedback P19 Silvan Büeler, Department of Neuro-Urology, Balgrist University Hospital Lumbosacral spinal cord imaging in neurogenic lower urinary tract dysfunction P20 Sara Uldry Julio, Balgrist University Hospital Physiology and pathophysiology of pain related evoked potentials P21 Jeannette Popovova, Clinic for Neuroradiology, USZ Investigating attention and visual brain processing through neurofeedback intervention P22 Charlotte Werner, Balgrist University Hospital Assessing movement quality of patients with a neurological disorder using wearable inertial sensors P23 Marius Tröndle, Department of Psychology, UZH Decomposing oscillatory power in resting state and task-related activity over the lifespan P24 Zhe Su, Institute for Neuroinformatics, UZH/ETH Asynchronous network-on-chip for neuromorphic hardware

P25 Chenxi Wu, Institute for Neuroinformatics, UZH/ETH Attractor dynamics on mixed-signal neuromorphic hardware P26 Nianlong Gu, Institute for Neuroinformatics, UZH/ETH Paper retrieval and discussion generation for scientific inference